



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/541,248

07/01/2005

Omid Kermani

49102

4948

1609 7590 09/29/2008

ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.  
1300 19TH STREET, N.W.  
SUITE 600  
WASHINGTON,, DC 20036

EXAMINER

HEINRICH, SAMUEL M

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

09/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,248	<b>Applicant(s)</b> KERMANI, OMID	
	<b>Examiner</b> Samuel M. Heinrich	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01 July 2005</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-22 contain feature descriptions which are also identified with a reference numeral (in parenthesis). This style of description causes the scope of the description to be unclear.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO02057746A in view of DE10020559A in view of US2002164678A1.

WO02057746A describes a microtome comprising a mount apparatus with a plate (feature 1) to hold at least one section of an object to be processed (page 9, line 6 and figure 7) and a separating device that comprises at least one laser radiation source (page 9, line 14) and means of focusing the laser radiation (page 9, lines 15-18), the beam focus produced by the focusing being movable relative to the support and

directable to one point in the separation surface of the object to be processed in order to effect a material separation at this point (page 9 lines 23-30).

WO02057746A does not describe pulsed application of the beam focus to the point in the separation surface, said means being set up to generate pulses with an application time of less than one picosecond.

DE10020559A describes the feature of the pulsed laser (paragraphs 1, 2, 15 and 25). It would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art to use pulsed laser energy in a microtome for laser machining.

US2002164678A1 describes destroying the biological material with the use of a pulsed femtosecond laser (e.g., Fig. 1, 2 and 3).

The use of ultrashort pulse laser in the laser microtome of WO02057746A would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the ultrashort pulse laser has a small heat affected zone (HAZ).

WO02057746A describes means of focusing the laser radiation that are set up to move the beam focus in at least one spatial direction relative to the plate (page 9, lines 15-18 and 23-30).

WO02057746A describes means of directing the laser radiation (page 9, lines 23-30).

US2002164678A1 describes means of focusing the laser radiation that have a numerical aperture  $>0.65$  (page 1, column 2, paragraph 16).

DE10020559A describes means of pulsed application of the laser radiation that are set up to interrupt the beam pulsing (paragraph 25).

DE10020559A describes means of pulsed application of the laser radiation that are set

up to cooperate with the radiation source (paragraph 25 and figure 1).

DE10020559A describes control means that control the time sequence of the radiation pauses and control the relative movement between the beam focus and the plate as a function of the time sequence of the radiation pauses (paragraph 25 and figure 1).

WO02057746A describes means of controlling the relative movement between the plate and the beam focus along a curved separation surface (page 9, lines 30-32).

WO02057746A describes means of viewing the object to be processed (feature 51, figure 1).

WO02057746A describes means of viewing that comprise an optical microscope (feature 25, figure 1).

DE10020559A describes means of viewing that display at least one section of the object to be processed using backscattered laser radiation (paragraph 37), the display means comprising a detector for capturing the radiation backscattered from the section of the object to be processed (paragraph 37).

DE10020559A describes means of producing a pictorial representation of the section of the object to be processed by superimposing the laser radiation backscattered from the section of the object to be processed and the coherent radiation reflected from the reference plane (paragraph 37).

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO98002851A in view of DE10020559A in view of US2002164678A1.

WO98002851A describes a microtome comprising a laser sectioning device.  
WO98002851A does not describe pulsed application of the beam focus to the point in

the separation surface.

DE10020559A describes the feature of the pulsed laser (paragraphs 1, 2, 15 and 25). It would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art to use pulsed laser energy in a microtome for laser machining.

US2002164678A1 describes destroying the biological material with the use of a pulsed femtosecond laser (e.g., Fig. 1, 2 and 3).

The use of ultrashort pulse laser in the laser microtome of WO98002851A would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the ultrashort pulse laser has a small heat affected zone (HAZ).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/  
Primary Examiner, Art Unit 3742